In-Depth

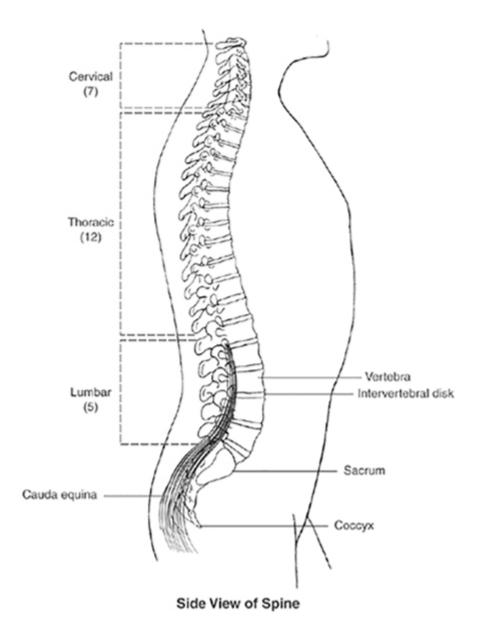


Overview

Points To Remember About Back Pain

- Back pain is one of the most common medical problems in the U.S.
- Acute pain is the most common type of back pain and lasts no longer than 6 weeks.
 Chronic pain can come on quickly or slowly and lasts a long time, generally longer than 3 months.
- Anyone can have back pain, but some things increase the risk.
- Back pain is a symptom of a medical condition. It can get better even if you do not know the cause.
- Treatment for back pain generally depends on how long your pain lasts.
- Exercise, proper diet, and hot and cold packs can help you live better with back pain.

Back pain is one of the most common medical problems in the U.S. It can range from a dull, constant ache to a sudden, sharp pain that puts you out of action. Sometimes it can come on suddenly—from an accident, a fall, or lifting something heavy. In other cases, it can develop slowly due to age-related changes to the spine.



Who Gets

Although anyone can have back pain, a number of factors increase your risk. They include:

- Age: Back pain becomes more common with age, with the first attack typically between ages 30 and 40.
- **Fitness level**: Back pain is more common among people who are not physically fit. For example, weak back and stomach muscles may not properly support the spine. Back pain is also more likely if you exercise a lot after being inactive for a while.
- Diet: A diet high in calories and fat, combined with an inactive lifestyle, can lead to obesity. This can put stress on the back.
- Heredity: Genetics play a role in some disorders that cause back pain.
- Race: African American women are more likely than white women to develop spondylolisthesis, a condition in which bones in the lower spine slip out of place.
- Other diseases: Back pain may be caused or worsened by some diseases, such as

- certain types of arthritis and cancers that spread to the spine.
- **Job-related risk factors**: Jobs that requires heavy lifting, pushing, pulling, or twisting can injure the back. A desk job may also play a role, especially if you have poor posture or sit all day in an uncomfortable chair.
- **Cigarette smoking**: Although smoking may not directly cause back pain, it increases your risk of developing low back pain and sciatica, which is back pain that travels to the hip and/or leg. Smoking can also slow healing from back injuries or surgeries.

Types

- Acute pain is pain that hits you suddenly after an accident, a fall, or lifting something heavy. Acute pain is the most common type of back pain and lasts no longer than six weeks.
- Chronic pain may come on either quickly or slowly and lasts a long time, generally longer than three months. This type of back pain is much less common.

Causes

Back pain can be caused by many different things, including:

- **Mechanical problems** in the way your spine moves or the way you feel when you move your spine in certain ways. Mechanical causes of back pain include break-down of the disks between the bones of the spine, ruptured disks, spasms, and muscle tension.
- Injuries such as sprains and fractures can cause either short-lived or chronic pain.
 Sprains are tears in the ligaments that support the spine, and they can occur from twisting or lifting improperly. Fractured vertebrae are often the result of osteoporosis. Less commonly, back pain may be caused by more severe injuries that result from accidents or falls
- **Medical conditions** can cause or contribute to back pain. They include:
 - o Scoliosis, curving of the spine that does not usually cause pain until middle age.
 - o Spondylolisthesis, where a bone in the spine slips out of place.
 - Various forms of arthritis.
 - Spinal stenosis, a narrowing of the spinal column that puts pressure on the spinal cord and nerves.
 - o Osteoporosis, which can lead to painful fractures of the vertebrae.
 - Pregnancy.
 - Kidney stones or infections.
 - Endometriosis, which is the buildup of uterine tissue in places outside the uterus.
 - o Fibromyalgia, a condition of widespread muscle pain and fatigue.
 - Infections can cause pain when they involve the bones of the spine or the disks between these bones.
 - Tumors can cause back pain in rare cases. Tumors may appear in the back or be the result of cancer that has spread from other parts of the body.

• Stress can worsen pain by causing back muscles to become tense and painful.

Treatment

Treatment for back pain generally depends on how long your pain lasts:

- Acute (short-term) back pain usually gets better on its own. Exercises or surgery are
 usually not recommended for acute back pain. There are some things you may try while
 you wait for your pain to get better:
 - Acetaminophen, aspirin, or ibuprofen will help ease the pain.
 - Get up and move around to ease stiffness, relieve pain, and have you back doing your regular activities sooner.
- Chronic (long-term) back pain is typically treated with nonsurgical options before surgery is recommended.
 - Nonsurgical Treatments:
 - Hot or cold packs can be soothing to constantly sore, stiff backs.
 - Exercise can help ease chronic pain and may reduce the risk of it returning. Check with your doctor before starting a new exercise routine.
 - Medications to treat chronic back pain are available over the counter or by prescription.
 - Pain relievers that are taken by mouth or applied to the skin. Examples include acetaminophen and aspirin.
 - Nonsteroidal anti-inflammatory drugs (NSAIDs) relieve pain and inflammation. Examples include ibuprofen, ketoprofen, and naproxen sodium.
 - Muscle relaxants and some antidepressants may be prescribed for some types of chronic back pain.
 - Your doctor may suggest steroid or numbing shots to lessen your pain.
 - <u>Traction</u> involves using pulleys and weights to stretch the back, which may allow a bulging disk to slip back into place. Your pain may be relieved while in traction, although pain returns once you aren't in traction.
 - Behavioral modification teaches you to:
 - Move your body properly while you do daily activities, especially those involving heavy lifting, pushing, or pulling.
 - Practice healthy habits, such as exercise, relaxation, regular sleep, proper diet, and quitting smoking.
 - Complementary and alternative treatments are an option when medications and other therapies do not relieve pain. Examples include:
 - Manipulation. Professionals use their hands to adjust or massage the spine or nearby tissues.
 - Transcutaneous electrical nerve stimulation (TENS). A small box over the painful area sends mild electrical pulses to nerves. TENS treatments are

- not always effective for reducing pain.
- Acupuncture. This Chinese practice uses thin needles to relieve pain and restore health. Acupuncture may be effective when used as a part of a comprehensive treatment plan for low back pain.
- *Acupressure*. A therapist applies pressure to certain places in the body to relieve pain. Acupressure has not been well studied for back pain.
- Surgical treatments may be necessary in some cases, including:
 - Herniated (ruptured) disks are when one or more of the disks that cushion the bones of the spine are damaged. The jelly-like center of the disk leaks, causing pain. Common surgeries include:
 - Laminectomy/diskectomy, which removes a portion of spinal bone as well as the damaged disk.
 - Microdiskectomy, which removes a damaged disk but through a smaller incision compared to laminectomy/diskectomy.
 - Laser surgery uses a needle that produces bursts of laser energy to reduce the size of the damaged disk. This relieves pressure on the nerves. The usefulness of this procedure is still being debated.
 - **Spinal stenosis**, a narrowing of the spinal column that puts pressure on the spinal cord and nerves, is treated by laminectomy. This is a major surgery that opens up the spinal column. A short hospital stay and physical therapy will be required after the surgery.
 - **Spondylolisthesis**, where one or more bones in the spine slip out of place. This is treated by laminectomy and spinal fusion, which joins two of the spinal bones together so that they don't move.
 - Vertebral fractures caused by injury to the bones in the spine or by osteoporosis. This is treated by:
 - Vertebroplasty involves injecting a cement-like mixture into the fractured bone to relieve pain and stabilize the spine.
 - Kyphoplasty relieves pain and stabilizes the spine following fractures caused by osteoporosis. Doctors insert a balloon-device to help restore the height and shape of the spine and then inject a cement-like mixture to repair the fractured bone.
 - **Degenerative disk disease**, or damage to the spine's disks as a person gets older. This can be treated by:
 - Intradiskal electrothermal therapy (IDET) is one of the least invasive therapies for low back pain. Doctors insert a heating wire into the damaged disk and pass an electrical current through the wire to strengthen the fibers that hold the disk together. The effectiveness of IDET is not clear.
 - *Spinal fusion*, which involves removing and fusing the damaged disk to help with the pain.
 - Disk replacement replaces the damaged disk with a synthetic one.

Back pain is a symptom of a medical condition, not a diagnosis itself. In rare cases, back pain is caused by a tumor, an infection, or a nerve root problem called cauda equina syndrome. In these cases, surgery is needed right away to ease the pain and prevent more problems.

You probably don't need to see your doctor for back pain, unless you have:

- · Numbness and tingling.
- Severe back pain that does not improve with medication.
- Back pain after a fall or injury.
- Back pain along with:
 - Trouble urinating.
 - Weakness, pain, or numbness in your legs.
 - Fever.
 - Weight loss that you didn't intend.

Who Treats

Many different types of doctors treat back pain:

- Family or primary care doctors (usually seen first).
- Doctors who specialize in disorders of the nerves, muscles, or skeleton.

Living With

There are a few things you can do to help you live with back pain:

- Hot or cold packs can be soothing to constantly sore, stiff backs. Heat dilates the blood vessels to increase blood supply to the back and reduce muscle spasms. Cold may reduce inflammation and numb deep pain.
- Exercise can help ease chronic pain and may reduce the risk of it returning. Check with your doctor before starting a new exercise routine, which may include the following:
 - Flexion exercises have you bending forward to reduce pressure on the nerves, stretch the back and hip muscles, and strengthen the stomach and buttock muscles.
 - Extension involve bending backward, such as lying on your stomach while you lift your leg or raise your trunk. These exercises may reduce pain that spreads from one place and develop muscles that support the spine.
 - Stretching improves the extension of muscles and other soft tissues of the back.
 These exercises can reduce back stiffness and improve range of motion.
 - Aerobic exercise gets your heart pumping faster and include brisk walking, jogging, and swimming. Avoid exercise that requires twisting, bending forward quickly, such as aerobic dancing and rowing. Avoid high-impact activities if you have disk disease.

Prevention

Work with your doctor to develop a plan to help prevent many types of back pain. The plan should include:

- Regular exercise that keeps your back muscles strong. Exercises that increase balance
 and strength can decrease your risk of falling and injuring your back or breaking bones.
 Exercises such as tai chi and yoga—or any weight-bearing exercise that challenges your
 balance—are good ones to try.
- Eating a healthy diet that includes enough calcium and vitamin D, nutrients that keep your spine strong. A healthy diet also helps in controlling weight to avoid putting unnecessary and injury-causing stress and strain on your back.
- Practicing good posture, supporting your back properly, and avoiding heavy lifting when possible.

Research Progress

Research on back pain focuses on:

- Understanding what causes back pain.
- Identifying ways to prevent back pain.
- Improving surgical and nonsurgical treatments for back pain. One initiative that compares the two types of treatment is the Spine Patient Outcomes Research Trial (SPORT).
- Preventing disability in people who suffer from back pain.

Related Resources

U.S. Food and Drug Administration

Toll free: 888-INFO-FDA (888-463-6332)

Website: https://www.fda.gov

Drugs@FDA at https://www.accessdata.fda.gov/scripts/cder/drugsatfda. Drugs@FDA is a searchable catalog of FDA-approved drug products.

Centers for Disease Control and Prevention, National Center for Health Statistics

Website: https://www.cdc.gov/nchs

Agency for Healthcare Research and Quality, Office of Communications and Knowledge Transfer

Website: https://www.ahrq.gov

National Institute of Neurological Disorders and Stroke

Website: https://www.ninds.nih.gov

National Center for Complementary and Integrative Health

Website: https://nccih.nih.gov/

National Institute for Occupational Safety and Health

Website: https://www.cdc.gov/niosh

American Academy of Orthopaedic Surgeons

Website: http://www.aaos.org

North American Spine Society Website: http://www.spine.org

American College of Rheumatology Website: http://www.rheumatology.org

Arthritis Foundation

Website: http://www.arthritis.org

American Chiropractic Association Website: http://www.amerchiro.org

American Osteopathic Association Website: http://www.osteopathic.org/

If you need more information about available resources in your language or other languages, please visit our webpages below or contact the NIAMS Information Clearinghouse at NIAMSInfo@mail.nih.gov.

- Asian Language Health Information
- Spanish Language Health Information

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Related Information

<u>Handout on Health: Back Pain</u>
What Is Back Pain? (fast facts, easy-to-read)

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Back Pain, Easy-to-Read Fast Facts